Indiana's Safe-T Interoperable Communications

By James Careless

In the world of interoperable first responder communications, the Hoosier state of Indiana is no Johnny-come-lately. In fact, the Indiana officials recognized the need for interoperable communications as far back as 1990. Unfortunately, a lack of political interest kept funds tight. Only after 9/11 was the state legislature willing to provide funds for a new statewide radio system.

Today, what is now called Project Hoosier SAFE-T (Safety Acting for Everyone-Together) is well on its way to completion. Funded through the Bureau of Motor Vehicle Fees through 2019, Project Hoosier SAFE-T promises to connect local, state, and federal first responders/public officials "throughout 95% of Indiana with 95% reliability," David Smith said.

Smith is Project Hoosier SAFE-T's director of implementation, acting on behalf of the Integrated Public Safety Commission (IPSC). Established by the state legislature in 1999, the IPSC is made up of government, first responder, and private sector members.

Architecture

Project Hoosier SAFE-T is being built upon a Motorola 4.1 Astro Smartzone OmniLink 800 MHz trunked voice and data system. It will be distributed statewide through 126 transmission sites in Indiana, providing direct wireless connections for both analog and digital 800 MHz radios. However, agencies using either VHF or UHF radios won't have to replace their technology because all participating dispatch centers will be connected to the SAFE-T network by landline or control stations.

The idea is to migrate all Indiana public safety users to the 800 MHz band so that they can direct-connect to the SAFE-T network. To motivate them, agencies will get 20-25% off Motorola's list prices plus volume maintenance discounts. Project 25 Phase One radios made by other manufacturers will talk to the SAFE-T network as well.

Once an agency is connected to the SAFE-T network, communicating with other agencies will be as easy as tuning their radio to a local talk group. "Project Hoosier SAFE-T has provisioned interoperable talk groups on the network," Smith explained. "These are available for fast activation and access, making inter-agency

communications a snap." To date, 56 SAFE-T transmissions sites are on-air, geographically covering about 50% of Indiana. The whole network is scheduled to be finished by the end of 2006.

Cost

Mindful of the cost pressures facing local agencies, Project Hoosier SAFE-T will cost around $78 million to build. Despite DHS grant increases, equipment is still very expensive. The important message is that Indiana is building a system for much less money than other states and with less financial pressure on local first responders. Member agencies do not have to pay any user fees because the bill is being footed by the state. Better yet, the IPSC will take care of constructing and maintaining the network's 129 transmission sites.

All that the member agencies will have to pay for is user and dispatch center equipment, much of which is eligible for government grants. The local agencies save in at least three ways. First, they don't have to pay for infrastructure construction and maintenance. Second, they don't pay user fees, which is unique to Indiana. And finally, they get a price break on Motorola equipment through the negotiated QPA.

Performance Under Fire

Even though Project Hoosier SAFE-T has yet to be completed, the partially finished network has already proved its worth in Johnson County, IN. In 1996, a Force 1 tornado with winds up to 112 mph ripped through this part of south central Indiana. Due to the existence of 18 incompatible radio systems in the county, first responders could not talk to each other. As a report on the National Institute of Justice's website comments, "Communications chaos reigned."

Ironically, over 30 of the first responders on the scene were able to access a common channel. However, they were so busy talking all over each other that this channel was basically useless. As a result, "control and calm was not restored for 96 hours," the NIJ report read.

Six years later, a Force 3 tornado with winds up to 206 mph came through Johnson County. It took a parallel course just 1,000 feet to the east of the 1996 twister. This time, the damage was greater, with total costs estimated at $7 million. However, thanks to the implementation of the Project Hoosier SAFE-T network within the county, the 13 responding agencies were able to talk to each other seamlessly, even though the system carried 4,000 interoperable transmissions during the first two hours of use.

All told, the SAFE-T network carried 12,995 transmissions during the seven hours it took to restore control and calm to Johnson County. "The nearly unanimous reports from various local government and public safety officials was that the new communications system performed extremely well," concludes the NIJ report. Certainly the fact that it only required seven hours to restore control and calm in 2002 versus 96 hours—four days—in 1996 says it all.

The Bottom Line

For states looking to tackle interoperability head-on, Project Hoosier SAFE-T presents a model worth studying. Besides choosing a technological solution that minimized equipment purchases by local agencies, the IPSC's decision to bear the brunt of the cost made the system even more attractive to them.

Of course, this decision came with consequences. Among them, the commission had to endure numerous defeats—including a failed attempt to win a share of riverboat gambling revenues—before 9/11 convinced state legislators to provide access to funding. Still, the IPSC's consideration of local agencies and their needs helped build local support for its plans, which put pressure on state politicians to get onside.

"During hearings on the bill that created the IPSC, representatives of the public safety and government associations testified in a historic demonstration of unity," says the NIJ report. "When the testimony was complete, the chair of the House Ways and Means Committee asked committee members if there was anyone who dared to vote against the bill."

Implications for Interoperability

The fact that it took 9/11 to make the IPSC and Project Hoosier SAFE-T a reality in no way lessens Indiana's interoperability achievements. If anything, it was the unshakable commitment of the state's interoperability advocates—including first responders, government, and industry members—that made it possible for such a solution to be at hand when state politicians finally got onside.

Once deployed, the value of a statewide radio network was made clear during the 2002 Johnson County tornado. Despite the fact that the twister was more devastating than the one that occurred six years earlier, the existence of interoperable communications resulted in a far quicker restoration of public safety and order.

Add the fact that Project Hoosier SAFE-T doesn't expect cash-poor local agencies to pay a hefty share of its costs, and one can see why this model is a viable interoperability solution. Granted, it is not the only way to confront the interoperability challenge, as has been shown by other approaches covered by LAW and ORDER.

For instance, some jurisdictions may not like the fact that Project Hoosier SAFE-T relies on a proprietary technology (Motorola), or that it is founded on a statewide radio system. However, it is difficult to refute the success of Project Hoosier SAFE-T as exemplified by the 2002 Johnson County response.

One word of advice: if you are considering replicating the Project Hoosier SAFE-T model in your jurisdiction, be sure to find someone in government to champion the proposal, and have some firm, practical sources of funding available.

Now that the horrors of 9/11 have faded somewhat from legislators' minds—despite what they may say—this kind of project will need solid political support and ready money to become a reality in this day and age. Get this kind of support, and you too may realize the kind of interoperability that Indiana is about to achieve.

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